AIA File No. 19-E-1

MENGEL
FLUSH DOORS

Engineered to Stay Flat

STABILIZED SOLID CORE

INSTITUTIONAL HOLLOW CORE

"700" HOLLOW CORE

RESIDENTIAL HOLLOW CORE

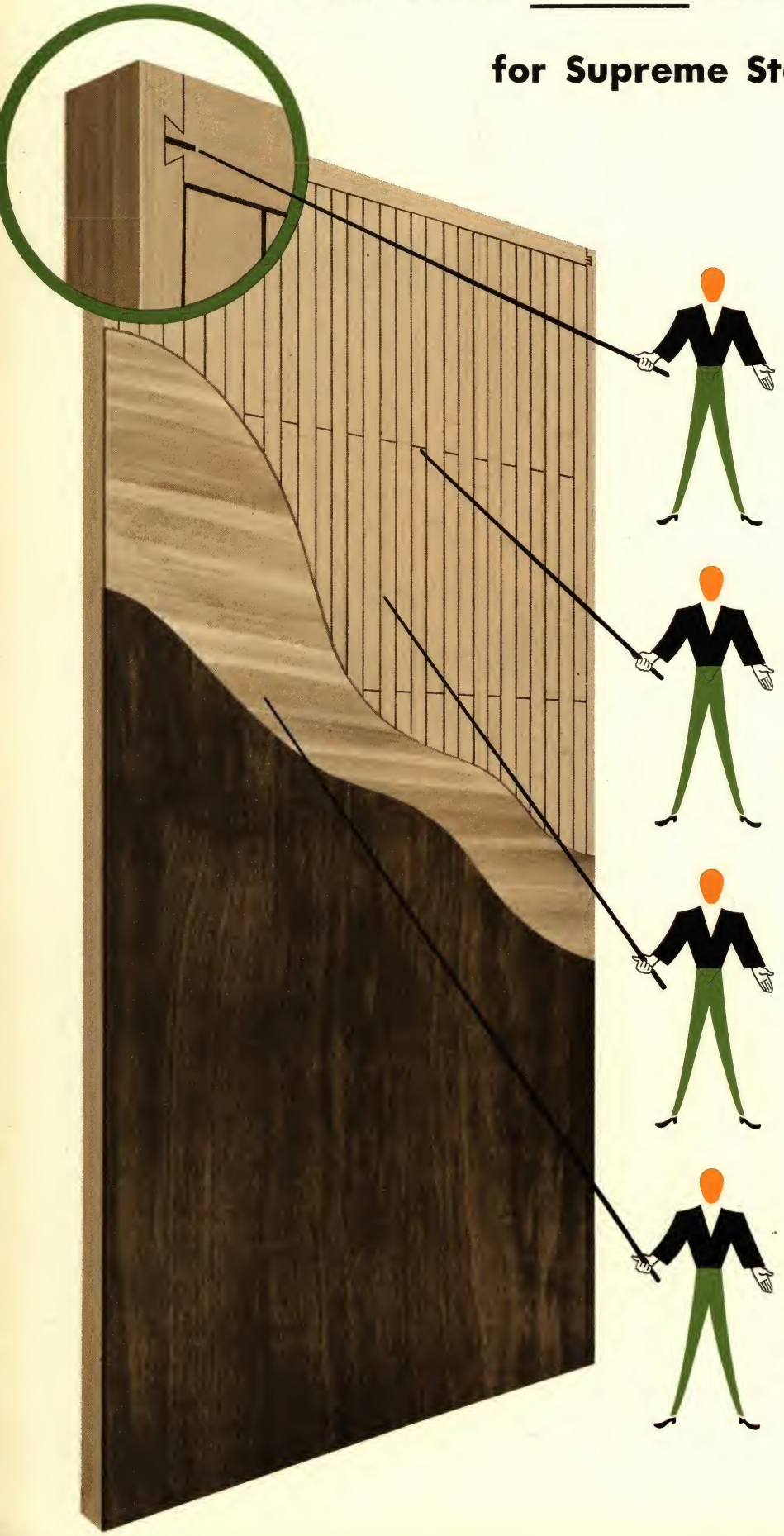
AVAILABLE IN

Birch
Walnut
Gum
Oak
African Mahogany
and Other Species

The Mengel Company, under its constant product improvement policy, reserves the right to change construction or design without reference to these specifications and illustrations.

AIA File No. 19-E-1

Now . . . the Ultimate In Solid-Core Construction, for Supreme Stability and Flatness . . .



Dove-tail joints at all four corners — finest cabinet-type construction — for greatest strength and rigidity.

Core parts are assembled to conform to a standard pattern. All butt joints are staggered.

Core pieces precision-machined to exact dimensions, and assembled with proper tolerance for expansion and contraction. Entire construction is engineered to stay flat.

Finest cross-banding and face veneers, with species of cross-banding selected for compatibility with face veneers.

MENGEL *Stabilized* Solid Core Doors

Precision-balanced framed core

PREVENTS distortion and dimension changes

HERE is the last word in solid-core doors . . . *engineered* for extreme stability and flatness.

Core pieces are precision-machined to exact dimensions—are assembled with the butt joints staggered to a scientific pattern, and with *lateral expansion-space* between the individual pieces. Thus, changes of moisture cannot significantly change the overall dimension of the door.

The frame itself is assembled with dove-tail joints at all four corners—costly *cabinet-work* construction which provides greater rigidity than other methods, and which Mengel pioneered.

The entire assembly, except the *edges* of the core pieces, is then coated with waterproof adhesive, and bonded under heat and pressure. The individual core pieces are not edge-glued, which permits them to expand and contract *within* themselves. Thus no distortion can be passed from one core-member to another, but is offset and absorbed *within* the unit.

In Mengel Solid-Core Doors, cross-bandings and face veneers are chosen, by species and by individual pieces, for compatibility. Nothing is overlooked, to make these the world's *outstanding* solid core flush doors.

Mengel Stabilized Solid Core Doors are manufactured in standard stock sizes up to 4/0 x 8/0—with or without standard light openings and louvers. Special openings quoted on request.

Matching stile edges are supplied automatically unless otherwise specified when so ordered.

Special purpose doors such as lead lined, Dutch Doors, etc., are available and will be quoted on request.

SPECIFICATIONS

- **GENERAL:** All doors shall be five-ply, flush type, Stabilized Solid-Core doors as manufactured by The Mengel Company. Stiles and rails shall have dove-tail joints at all four corners. Doors shall be constructed in strict accordance with Mengel Standard Construction, and shall meet or exceed requirements of Commercial Standard 171-58.

- **CORES:** Cores shall be made up of properly kiln dried wood blocks no wider than 2" and of varying lengths, with grain running vertically. Cores will be of the framed strip type, with core pieces non-edge glued for stability. Hardwood or softwood may be used.

- **CROSSBANDS:** Crossbands shall be thoroughly kiln dried hardwood 1/10" thick, extending the full width of the door and laid with the grain at right angles to the face veneer.

- **FACE VENEERS:** Face veneers shall be made of thoroughly kiln dried hardwoods of standard thickness, and laid with the grain at right angles to the grain of the crossbands. Doors may not be ready for painter's finish if subjected to excess humidity, or rough handling.

- **EDGE BANDS:** The stile edges shall have an over-all width of 1⅛", with laminated matching edges at least ½" wide after trimming. The rails shall be at least 2½" wide to be made of thoroughly kiln dried hardwood or softwood.

- **ADHESIVE:** Crossbands and faces shall be laminated to the cores with 100% waterproof resin glue, by the hot plate process.

- **PREFIT:** All doors shall be trimmed square and factory prefit to standard size.

- **LIGHT AND LOUVER OPENINGS:** Where specified, doors shall be provided with light and louver openings in accordance with Mengel detail list. Beads shall be provided when specified, and shall be tacked in loose.

Top rails are 5″ wide, for installation of door closers. Stiles are 3″ wide. Entire frame is softwood.

Intermediate rail is 3″ wide. Two 40″ softwood lock blocks are used.

Kick plate rail is 3″ wide, located 10″ from bottom of door. Bottom rail also 3″ wide.

Three-ply face panels. Veneers chosen for beautiful appearance — cross-banding for similarity of expansion and contraction (compatibility).

Second Only to Solid-Core Doors for Buildings Other than Residential —

MENGEL *Institutional* DOORS

Built to Accommodate Door Closers, Panic Bars, Kick Plates, Etc.

These super-fine doors are especially recommended for use in public buildings, etc. where the weight of solid core doors, or their higher cost, is not desired.

Mengel Institutional Doors are the nearest possible approach to Mengel Solid-Core Doors in quality and durability. They provide for special hardware such as door closers, kick plates and panic bars. They feature 7-ply construction, with reinforced frames and cores, and an intermediate rail completely across the center, with 40″ lock blocks on both sides.

Core strips are made from Mengel's famous extra-heavy fiber-core material, evenly spaced on 1½″ centers. This construction provides more gluing surface, by which the cores are permanently bonded to the 3-ply face panels. The result is *greater strength.*

Mengel Institutional Doors are light, durable, and immune to sagging, warping or buckling under normal conditions. They are designed, *engineered* and constructed to the highest standards of value, and are *quality-controlled* throughout manufacture.

SPECIFICATIONS

- **GENERAL:** All doors so specified shall be seven-ply, bottom core, flush type, institutional doors as manufactured by The Mengel Company. Institutional doors shall be identified with a dowel centered in each rail. Doors will be constructed in strict accordance with Mengel Standard Construction and shall meet or exceed requirements of Commercial Standard 171-58.
- **CORES:** Cores shall be ladder type, core strips to be made from a wood derivative and uniformly spaced 1½″ on center for interior and exterior use. All core parts or members shall be bonded to face panels.
- **FACE PANELS:** Face panels shall be three-ply construction made up of standard thickness veneers, and shall be ⅛″ thick over all before sanding. Face veneers shall be sanded smooth according to Mengel's standards. Doors may not be ready for painter's finish if subjected to excess humidity or rough handling.
- **FRAME:** Stiles and rails shall be made of softwood. The top rail shall be 5″ in width and the bottom rail shall be 5″ in width.
- **LOCK BLOCKS:** Lock blocks shall be made of softwood and shall be 3″ wide (6″ including stiles) and 10″ long centered on both sides.
- **ADHESIVES:** All adhesives shall conform to Commercial Standard 171-58, Type I or Type II, as specified.
- **SIZES:** Produced in all standard sizes 1⅜″ or 1¾″.
- **PREFIT:** All Mengel Flush Doors are prefit in standard stock sizes.

The Aristocrat of All Hollow-Core Doors for Non-Institutional Usage — The Famous

MENGEL "700" DOORS

Specified by More Architects Than Any Other Mengel Hollow-Core Doors Ever Built

Dove-tail joints at all four corners—finest cabinet-type construction —for greatest strength and rigidity.

Heavy ⅜" fiberboard grid core, spaced 3" on centers, for greater gluing surface, extra strength and durability.

Stiles 1¼" wide, (giving overall lock block and stile width of 4⅛").

Three-ply face panels. Face veneers chosen for beautiful appearance— cross-banding for similarity of expansion and contraction (compatibility).

Even though we have not advertised Mengel "700" Doors in several years, and even though they cost more than conventional hollow-core doors, the demand continues to grow.

Mengel "700" Doors embody several exclusive features which cannot be duplicated elsewhere—dove-tail joints at all four corners of the frame, for greatest strength and rigidity—fine 7-ply construction—heavy fiberboard grid cores, spaced 3" on centers for extremely stable, warp-resistant service.

Mengel "700" Doors are recommended for non-institutional use *where nothing but the very best will do.* Guaranteed for two years. Manufactured with or without standard light openings and louvers. Finished with matching style edges when so ordered.

SPECIFICATIONS

- **GENERAL:** All doors shall be seven-ply, flush type, hollow core doors, specified for interior or exterior use, as manufactured by The Mengel Company. Stiles and rails shall have dove-tail joints at all four corners. Doors shall be constructed in strict accordance with Mengel Standard Construction, and shall meet or exceed minimum requirements of Commercial Standard 171-58.

- **CORES:** Cores shall be grid type, core strips to be made from a wood derivative and spaced 3" on center, both horizontally and vertically. All core parts or members shall be bonded to face panels.

- **FACE PANELS:** Face panels shall be three-ply construction made up of standard thickness veneers, and shall be ⅛" thick over all before sanding. Face veneers shall be sanded smooth according to Mengel standards. Doors may not be ready for painter's finish if subjected to excess humidity, or rough handling.

- **STILES AND RAILS:** Stiles and rails shall be made of softwood. Stiles to be 1¼" wide, rails to be 2½" wide. When specified, matching hardwood edge strips shall be laminated to the stiles and shall be ½" wide after trimming.

- **LOCK BLOCKS:** Lock blocks shall be made of softwood and shall be 2⅞" wide (4⅛" incl. stile) and 20" long centered on both sides.

- **ADHESIVES:** All adhesives shall conform to Commercial Standard 171-58, Type I or Type II, as specified.

- **SIZES:** Produced in all standard sizes 1⅜" or 1¾".

- **PREFIT:** All Mengel Flush Doors are prefit to standard stock sizes.

Excellent Hollow-Core Doors

For Normal Usage—

MENGEL *Residential* DOORS

Engineered and Built Flat

To STAY Flat

Rails are full 2½" wide. Entire frame is softwood, for easiest installation of hardware.

Stiles are full 1⅛" wide, and both lock blocks are 2⅞" x 20".

Heavy fiber-board core with horizontal pieces notched into vertical pieces attached to stiles, to form grid pattern.

Three-ply face panels. Veneers chosen for beautiful appearance — cross-banding for similarity of expansion and contraction (compatibility).

Mengel Hollow-Core Flush Doors are lower-priced, quality doors built in both interior and exterior types. They are constructed of two 3-ply face panels laminated to a sturdy frame. The heavy fiber-board core strips are spaced on equal centers, in ladder-type construction as illustrated. The planned distribution and uniform spacing of this grid assures a great gluing area throughout the door, resulting in a strong bond between the core and the faces. Up-to-the-minute scientific bonding methods, employing pressure and heat, are used.

These are the famous Mengel Doors which have been proved by the years and by millions of installations. They are outstandingly better values. They are sold under exactly the same Guarantee as Mengel Solid Core Flush Doors, and Mengel Institutional Hollow Core Doors.

Manufactured with or without standard light openings and louvers. Furnished with matching stile edges when so ordered.

SPECIFICATIONS

- **GENERAL:** All doors shall be seven-ply, flush type, hollow core doors, specified for interior or exterior use, as manufactured by The Mengel Company. Doors shall be constructed in strict accordance with Mengel Standard Construction, and shall meet or exceed requirements of Commercial Standard 171-58.

- **CORES:** Cores shall be ladder type, core strips to be made from a wood derivative and uniformly spaced 3" on center for interior doors, and 1½" on center for exterior doors, to insure adequate strength and stability for normal usage. All core parts or members shall be bonded to face panels.

- **FACE PANELS:** Face panels shall be three-ply construction made up of standard thickness veneers, and shall be ⅛" thick over all before sanding. Face veneers shall be sanded smooth according to Mengel standards. Doors may not be ready for painter's finish if subjected to excess humidity, or rough handling.

- **STILES AND RAILS:** Stiles and rails shall be made of softwood. Stiles to be 1⅛" wide, rails to be 2½" wide. When specified, matching hardwood edge strips shall be laminated to the stiles and shall be ½" wide after trimming.

- **LOCK BLOCKS:** Lock blocks shall be made of softwood and shall be 2⅞" wide (4" incl. stile) and 20" long centered on both sides.

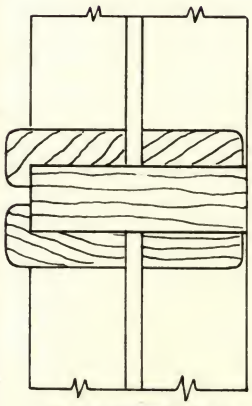
- **ADHESIVES:** All adhesives shall conform to Commercial Standard 171-58, Type I or Type II, as specified.

- **SIZES:** Produced in all standard sizes 1⅜" or 1¾".

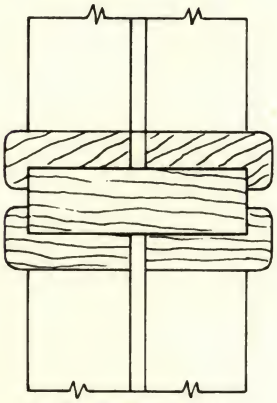
- **PREFIT:** All Mengel Flush Doors are prefit to standard stock sizes.

STANDARD LIGHT DETAILS

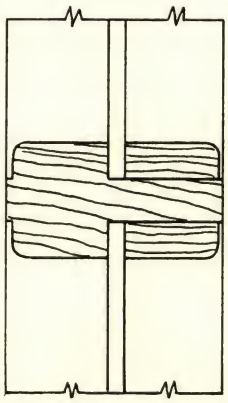
SOLID-CORE DETAILS



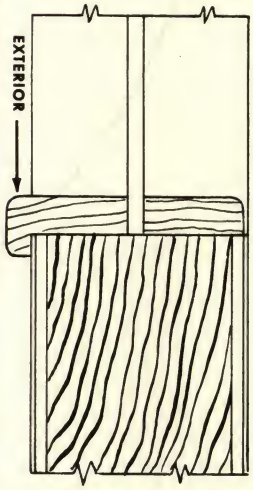
M-1 MUNTIN BAR



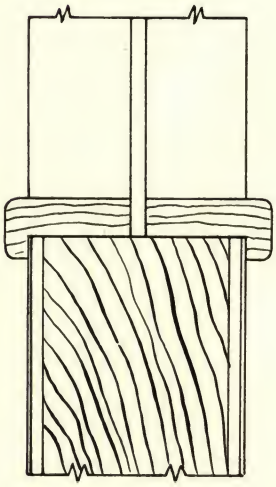
M-2 MUNTIN BAR



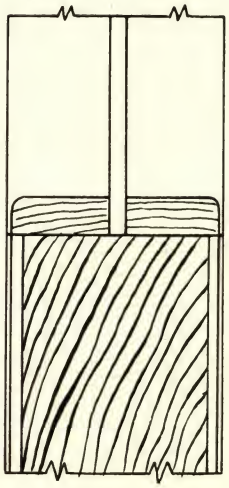
M-3 MUNTIN BAR



M-1 EXTERIOR COMB.

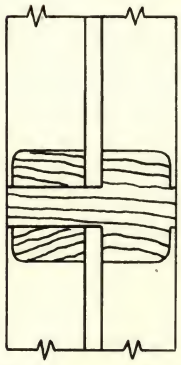


M-2 EXTERIOR LIP

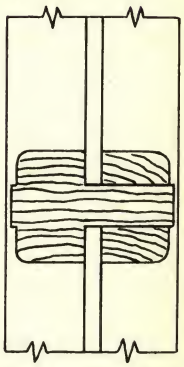


M-3 INTERIOR FLUSH

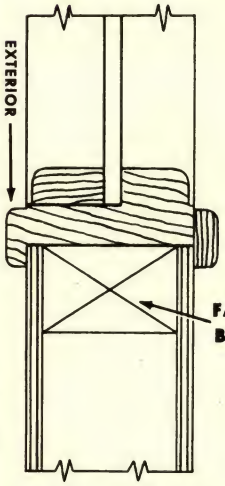
HOLLOW-CORE DETAILS



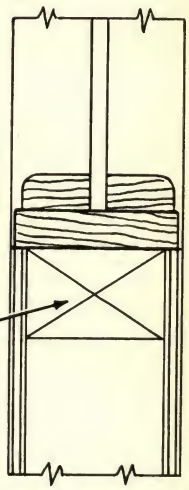
M-4 MUNTIN BAR



M-5 MUNTIN BAR



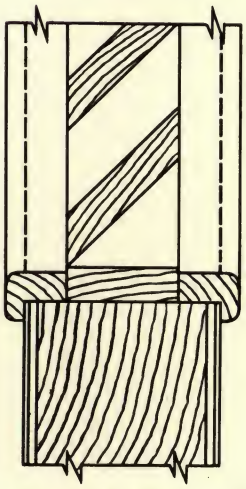
M-4 EXTERIOR LIP



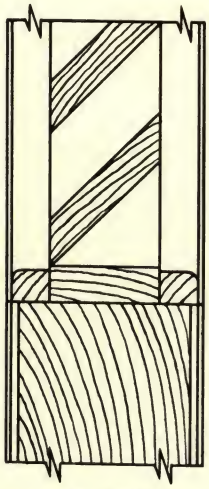
M-5 INTERIOR FLUSH

STANDARD LOUVER DETAILS

SOLID-CORE DETAILS

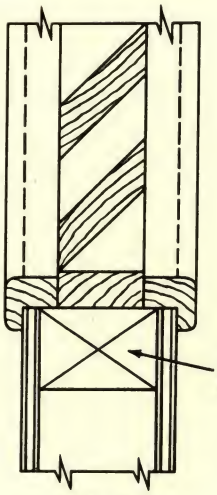


M-6 LIP

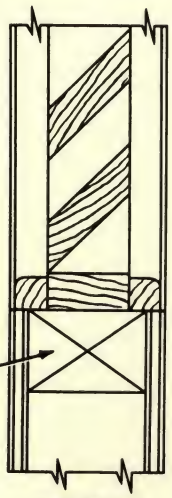


M-7 FLUSH

HOLLOW-CORE DETAILS



M-8 LIP



M-9 FLUSH

GREATER PITTSBURGH AIRPORT, Pittsburgh, Pa.
Joseph Hoover, Architect
Dick Construction Co., Contractor

METHODIST HOSPITAL OF SOUTHERN CALIFORNIA, Arcadia, California
Neptune & Thomas, Architects
Twaits-Whittenburg Co., Contractors

MICHIGAN STATE UNIVERSITY DORMITORIES AND DINING HALL—
KELLOGG CENTER, East Lansing, Michigan
Ralph C. Calder, Architect • The Christman Co., Contractors

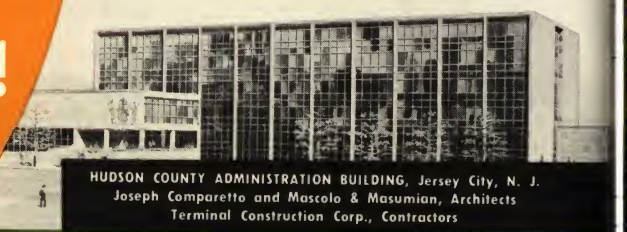
Quality Makes the Difference!

MENGEL DOORS Are Fully Guaranteed for 2 Years!

DUVAL COUNTY COURTHOUSE, Jacksonville, Florida
Reynolds, Smith and Hill, Architects
George D. Auchter Company, Contractors

STATLER HILTON HOTEL, Dallas, Texas
Wm. B. Tabler Assoc., Architects
Robert E. McKee, Contractor

CHETWYND, INC. APARTMENTS, Rosemont, Pa.
Charles Frederick Wise, Architect
Mathew Weinstein, Rosemont Construction Co., Contractors



HUDSON COUNTY ADMINISTRATION BUILDING, Jersey City, N. J.
Joseph Comparetto and Mascolo & Masumian, Architects
Terminal Construction Corp., Contractors

The Mengel Company is a member of the National Woodwork Manufacturers Association, and every Mengel Door is warranted under the provisions of the NWMA standard door guarantee—*except that all Mengel Doors are guaranteed for two years from date of shipment, instead of one year.*

A copy of the complete standard door guarantee of the NWMA will be gladly mailed to you on request. Meanwhile, the following excerpts are respectfully called to your attention:

"Doors must be accorded reasonable treatment by the purchaser. Doors must be stored or hung in dry buildings and never in damp, moist or freshly plastered areas. Doors must not be subjected to abnormal heat, dryness or humidity. The . . . structural strength of the door must not be impaired in the fitting of the door, the application of hardware, or cutting and altering the door for lights, louvers, panels and any other special details. *Immediately after fitting, the entire door including top and bottom edges must receive two coats of paint, varnish or sealer* to prevent undue absorption of moisture.

Doors must be inspected upon arrival for visible defects and all claims or complaints . . . must be filed immediately."

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